

**8:2:2 Histograms****Name****Hour**

For problems 1 and 2, draw a histogram of the given data sets. Use intervals of 4 for both histograms.  
*HINT: Put your data into a Frequency Table first – this will help you organize the data!!*

1) The heights of 3 year olds at Nana's Happy Time Daycare in Greendale, Wisconsin are as follows:  
(All heights are in inches.)

22, 36, 30, 27, 28, 33, 38, 27, 34, 33, 32, 31, 35, 34, 29, 30, 25, 34

2) The heights of 3 year olds at Stepping Stones Preschool in San Clemente, California are as follows:  
(All heights are in inches.)

29, 30, 33, 39, 35, 34, 36, 32, 27, 37, 34, 36, 38, 26, 37, 36, 40, 33

3) Use the histograms you made in #1 and #2 to draw a conclusion about the heights of the 3-year olds in the Greendale daycare compared to the 3-year olds in the San Clemente preschool.

4) In one encyclopedia, the population of the United States is given for each of these age intervals: 0 – 14, 15 – 29, 30 – 44, 45 – 59, 60 – 74, 75 and over. Explain, in a complete sentence, why you *cannot* use these intervals to make a histogram of the data.

In 1978, D. H. Foster performed an experiment to see how many people process visual patterns. Participants were shown 96 pairs of patterns like those at the right. They were asked if the two patterns contained the same number of dots. The numbers of correct responses for the 24 participants are given below.

55, 60, 58, 50, 57, 59, 61, 59, 65, 58, 49, 63,

54, 55, 56, 48, 50, 62, 66, 55, 51, 54, 62, 61

5) Draw a histogram of the data using intervals of 2.

6) Draw a histogram of the same data using intervals of 5.

7) Explain how you can draw the histogram (for the same set of data) using intervals of 10 using only the histogram from #5.